Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) An electrically controllable light diffuser comprising:

an optical medium and an electro-optic medium arranged with an effective optical interface between a first surface of the optical medium and a first surface of the electro-optic medium; and

transparent electrodes arranged for providing an electric field across the electro-optic medium so as to allow control of the refractive index of the electro-optic medium by application or non-application of an electric field across the electro-optic medium, wherein

one of the first surface of the optical medium and the first surface of the electro-optic medium is structured with a surface profile, the surface profile comprising plural surface angles, wherein the plural surface angles comprise a distribution of facet angles which vary on a scale larger than a diffraction limit, but smaller than a sub-pixel spacing, the distribution configured to provide an effect observed as one of a diffuser with respect to the spacing of sub-pixels, wherein the effective optical interface acts overall as the diffuser, further having an angular diffusion profile with a vertical scattering component of less than one percent (1%) and a horizontal scattering component of approximately ten percent (10%), such that (i) when the refractive index of the electro-optic medium is controlled by application or non-application of an electric field to be substantially equal to the refractive index of the optical medium there is substantially no refraction arising from the effective optical interface between the first surface of the optical medium and the first surface of the electro-optic medium, and such that (ii) when the refractive index of the electro-optic medium is controlled by application or non-application of an electric field to be different from the refractive index of the optical medium refraction does take place at the effective optical interface between the first

surface of the optical medium and the first surface of the electro-optic medium and, by virtue of there being plural surface angles, the refraction directs light to a corresponding plurality of angles thereby providing a diffusion effect.

2. (Original) A diffuser according to claim 1, wherein the plural surface angles are distributed differently in different surface directions such that light is diffused to different extents in different surface directions.

3. (Previously Presented) A diffuser according to claim 1, wherein the refractive index of the electro-optic medium is substantially equal to the refractive index of the optical medium when an electric field is applied across the electro-optic medium and the refractive index of the electro-optic medium is different from the refractive index of the optical medium when no electric field is applied across the electro-optic medium.

4. (Previously Presented) A diffuser according to claim 1, wherein the electro-optic medium comprises small droplet polymer dispersed liquid crystal.

5. (Currently Amended) An autostereoscopic display device, comprising:

an array of sub-pixels or pixels;

directing means comprising a plurality of directing elements;

groups of the sub-pixels or pixels, each group comprising plural sub-pixels or pixels, being arranged in correspondence with respective directing elements; and

an electrically controllable diffuser, the electrically controllable diffuser comprising:

an optical medium and an electro-optic medium arranged with an effective optical interface between a first surface of the optical medium and a first surface of the electro-optic medium; and ~~the electrically controllable diffuser further comprising:~~

transparent electrodes arranged for providing an electric field across the electro-

optic medium so as to allow control of the refractive index of the electro-optic medium by application or non-application of an electric field across the electro-optic medium, wherein

one of the first surface of the optical medium and the first surface of the electro-optic medium is structured with a surface profile, the surface profile comprising plural surface angles, wherein the plural surface angles comprise a distribution of facet angles which vary on a scale larger than a diffraction limit, but smaller than a sub-pixel spacing, the distribution configured to provide an effect observed as one of a diffuser with respect to the spacing of sub-pixels, wherein the effective optical interface acts overall as the diffuser, further having an angular diffusion profile with a vertical scattering component of less than one percent (1%) and a horizontal scattering component of approximately ten percent (10%), such that (i) when the refractive index of the electro-optic medium is controlled by application or non-application of an electric field to be substantially equal to the refractive index of the optical medium there is substantially no refraction arising from the effective optical interface between the first surface of the optical medium and the first surface of the electro-optic medium, thereby providing a non-diffusing mode, and such that (ii) when the refractive index of the electro-optic medium is controlled by application or non-application of an electric field to be different from the refractive index of the optical medium refraction does take place at the effective optical interface between the first surface of the optical medium and the first surface of the electro-optic medium and, by virtue of there being plural surface angles, the refraction directs light to a corresponding plurality of angles thereby providing a diffusion mode;

the sub-pixels or pixels, the directing means, and the electrically controllable diffuser being arranged such that:

when the diffuser is in the non-diffusing mode, light from different sub-pixels or pixels within a group is directed in different directions by the corresponding directing element, thereby providing a 3D mode; and

when the diffuser is in the diffusing mode, light from different sub-pixels or pixels within a group is mixed.

6. (Original) A display device according to claim 5, wherein in the diffusing mode the extent of diffusion is sufficient to provide sufficient mixing to provide a substantially 2D image.

7. (Original) A display device according to claim 5, wherein in the diffusing mode the extent of diffusion is only sufficient to provide sufficient mixing to provide an image intermediate between 2D and 3D.

8. (Previously Presented) A display device according to claim 5, wherein the directing means is a lenticular sheet and the directing elements are lenticular elements.

9. (Previously Presented) A display device according to claim 8, wherein the sub-pixels or pixels are arrayed in rows and columns; the lenticular elements are arranged substantially parallel with the columns, such that groups of the sub-pixels or pixels along a row are arranged in correspondence with respective lenticular elements; and the plural surface angles are distributed differently in the row and column directions such that in the diffusing mode light is diffused more in the row direction than in the column direction.

10. (Previously Presented) A display device according to claim 5, wherein the refractive index of the electro-optic medium is substantially equal to the refractive index of the optical medium when an electric field is applied across the electro-optic medium and the refractive index of the electro-optic medium is different from the refractive index of the optical medium when no electric field is applied across the electro-optic medium, so that the diffusing mode is achieved when no electric field is applied.

11. (Previously Presented) A display device according to claim 5, wherein the electro-optic medium comprises small droplet polymer dispersed liquid crystal.